

## **SITE DESCRIPTION: STOKES COUNTY INVENTORY REPORT, 1997**

**SITE 10 NAME:** Dan River Lower Hemlock Bluff

**SIZE:** About 40 acres

**SITE SIGNIFICANCE:** State. The site supports an excellent example of the very rare Piedmont Calcareous Cliff community type, known from only three locations in the state. It also contains several significantly rare plant occurrences.

**QUADRANGLE:** Danbury

**LOCATION:** Located on east and north facing slopes on the south side of the Dan River 0.9 air mile due north of the center of Danbury, NC. The middle of the site is directly opposite the mouth of Sandy Run, where it enters the Dan River.

**GENERAL DESCRIPTION:** The Dan River Lower Hemlock Bluff is named for its Canada Hemlock Forest situated on a north facing bluff on the Dan River. Both the uncommon hemlock bluff and an associated rare calcareous cliff community are of high quality.

The rare Piedmont Calcareous Cliff community is known from only three locations in the state. This good quality example is about 100 feet tall and at least 200 feet long, extending from the Dan River upslope to the middle of the site. In one area on the cliff face, unusual cave-like recesses extend into the rock for as much as 10 feet; these were presumably formed by dissolution of small bodies of marble. This probable presence of marble, a rock type which weathers to produce very rich soils, helps explain the unusual plant species composition of the cliff area. Occasional recesses and moist overhangs are also present, though most of the cliff is exposed and dry.

The cliff supports plant species found on both high pH (basophilic) and low pH (acidophilic) rock types. The collection of basophilic plant species includes the significantly rare cliff stonecrop (*Sedum glaucophyllum*), as well as columbine (*Aquilegia canadensis*), and walking fern (*Asplenium rhizophyllum*). Other rock outcrop plants such as Virginia saxifrage (*Saxifraga virginensis*), crag-jangle (*Heuchera villosa*), and the uncommon grotto alumroot (*Heuchera parviflora*), a state watch list species, are present. A lush carpet of herbs grows in rich soil in places at the forested edge of the cliff including enchanter's-nightshade (*Circaea lutetiana*), wild ginger (*Asarum canadense*), heartleaf aster (*Aster divaricatus*), blue cohosh (*Caulophyllum thalictroides*), black cohosh (*Cimicifuga racemosa*), and ferns such as cove bladder fern (*Cystopteris protrusa*), maidenhair fern (*Adiantum pedatum*), and silvery spleenwort (*Deparia acrostichoides*).

The cliff area grades to a bluff which supports a Canada Hemlock Forest community, which is uncommon in the Piedmont. The northern aspect and evergreen canopy produce unusually cool slopes. The canopy is dense and strongly dominated by Canada hemlock in many areas, but chestnut oak, hop-hornbeam, red oak, cucumbertree, white oak, yellow poplar, and